Information Service
ISSN 0409-7467
12 JUN 1981
C.F.T.R.I., MYSORE

CSIR NEWS

A SEMI-MONTHLY HOUSE BULLETIN OF CSIR

VOL 31 NO 9 15 MAY 1981

PRIME MINISTER PRESENTS HANTI SWARUP BHATNAGAR PRIZES: 1980

Indira Gandhi, Prime Minister, and dent of CSIR, gave away the 1980 ti Swarup Bhatnagar Prizes for ce and Technology to ten distin- ed scientists at a function held at National Physical Laboratory, New i, on 21 April 1981. While the prizes four disciplines, viz. physical, gical, medical and earth sciences, shared by two scientists in each pline, those in engineering and ical sciences went to individual tists. In chemical sciences, no rd was given.

ongratulating the winners of this tigious prize, the Prime Minister, in address, said that such awards onstrated the nation's recognition e sustained and committed research rilliant, young scientists. Expressing iration for those Indian scientists who having gone abroad for better remuneration and facilities were making valuable contribution to the world community, she hastened to add: "But we do have greater admiration for those who give more importance to work in their own country, putting up with all the limitations of scarce resources and the conditions which are far from ideal imposed on them."

"The Bhatnagar award function is a time for introspection and revolution of views and other issues before the scientific community. Its message is that laurels are not to be sought but acquired", Smt Gandhi remarked.

Emphasizing that scientific research could not be divorced from moral values and social objectives, the Prime Minister advocated an approach which would enable mankind to progress along with science. Senior scientists, she said, should inspire younger scientists by

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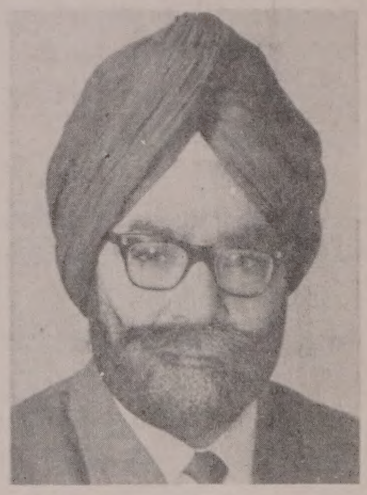
Dr Sidhu Appointed DGSIR

Dr G.S. Sidhu has been appointed Director General, Scientific & Industrial Research; he is also Secretary



(CSIR Affairs) to the Government of India in the Department of Science and Technology.

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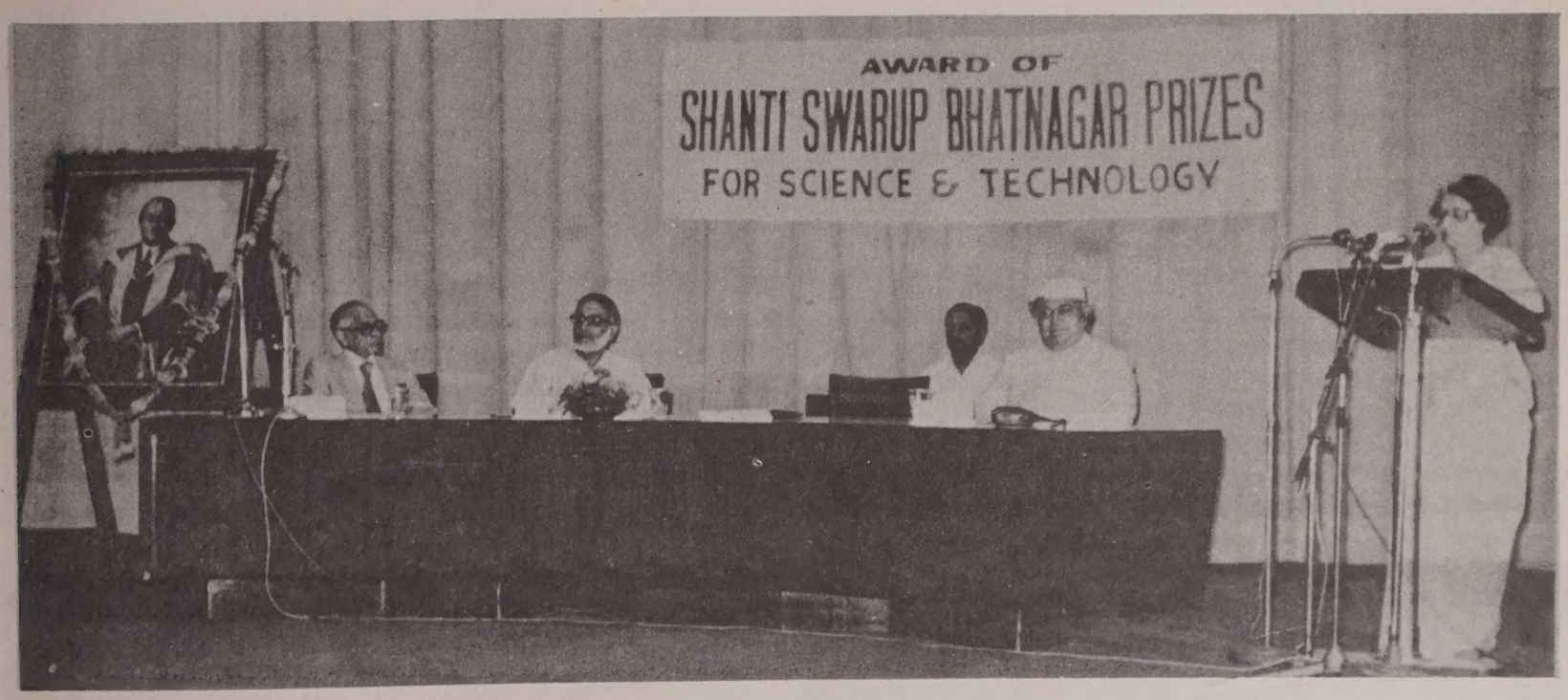

Smt Indira Gandhi, Prime Minister, and President, CSIR, addressing the gathering. Seated on the dais (*from right*) are: Prof. S. Nurul Hasan, Vice President, CSIR; Prof. M.G.K. Menon, the then DGSIR; and Dr A.R. Verma, Director, NPL

BHATNAGAR PRIZES

Contd from p. 65, col. 3

guidance in tackling the nation's problems, through a multidisciplinary approach.

Stating that the collective efforts of Indian scientists had strengthened the developmental base of the nation, she stressed that the most important assignment now for the scientists was to find additional energy sources for development, especially in rural areas. In this context, the Prime Minister referred to the newly created Commission for Additional Sources of Energy, which, she hoped, would carry the R&D work for the direct benefit of the people. She also called for the harnessing of the sea resources for development. Underscoring the need for preserving the environment, she said, "We must live in harmony with nature" without disturbing the ecological balance. In this context, she referred to the immense potential in our forests for fuel and paper-making as well as for food and medicine. If tapped properly, these forests could generate adequate employment for people living around them. Considerable work was needed to be done on our herbs and plants. The new Department of Environment should draw and build on the work of our national laboratories and other research institutions, she added.

Commending the work of the Council's laboratories, the CSIR President said, "The Council was fostering latent talent and also promoting discovery and innovation to the stage where they became processes which assisted the rural and industrial development".

Earlier, while delivering the welcome address, the CSIR's Vice President Prof. S. Nurul Hasan gratefully acknowledged the great interest which the Prime Minister was taking in fostering science and technology in the country in general and in the functioning of CSIR in particular, as its President. Referring to Dr Shanti Swarup Bhatnagar, in whose memory the prizes were instituted, the Vice President said Dr Bhatnagar's 'contribution to the cause of science in India and to CSIR will always remain fresh.' By instituting these awards we are honouring excellence, observed Prof. Hasan. For a true scientist the quest for knowledge and pursuit of truth and the desire to serve humanity were rewards in themselves. But the recognition by society had a value too, because by honouring the individual the society honours the symbol of selfless devotion and significant achievem And when the individual is honou also honoured with him are those on basis of whose work the individual made a special contribution, P Hasan said.

Paying rich tributes to S Jawaharlal Nehru, the first Pri Minister of India, the Vice Presid said that Nehru's faith in the capacity science and technology to transform country would ever remain a continu challenge to us.

In a reference to the sixth Five-Y Plan and the S&T plan which formed the instance of Smt Gandhi, an integ part of the former, the CSIR V President expressed the hope that worthwhile or significant project wou be permitted to languish for want funds, although the financial allocatio may not fully come up to t expectations of scientists.

Referring to CSIR's contributio Prof. Nurul Hasan said that a great de of extremely valuable work was bei done for the development of industry well as for other sectors of economy. an instance of CSIR's recent achiev ment he cited the dredging of polymeta lic nodules from the deep sea— project which had attracted worldwi attention.

Shanti Swarup Bhatnagar Prizewinners with the Prime Minister Smt Indira Gandhi. Seen from left are: Prof. R. Sridharan, Dr J.S. Singh, Prof. Asis Datt Dr V.S. Arunachalam, Prof. N. Mukunda, Dr N.S. Satya Murthy, Prof. P.R. Adiga, Dr J.G. Negi, Prof. T. Desiraju and Prof. B.K. Sahu

rof. M.G.K. Menon, who was then Director General, Scientific & ıstrial Research, traced, in his ress, the history of Shanti Swarup tnagar Prizes, 'which were given on ational basis and not restricted to R scientists.' Since the institution of prize in 1957, 146 scientists, 88 of m jointly, had received the awards l a very large number of the awardees e playing a significant role and uld continue to do so in national leavour in science at a variety of ces, Prof. Menon added. Prof. non also mentioned that over the ır decades CSIR has been in stence, it had built a scientific base oss a wide range of civilian activities the country, and had contributed in a ostantial measure to the nation's ogress.

Later, Prof. Menon read out the ations, which are reproduced below:

CITATIONS

Prof. N. Mukunda

e Shanti Swarup Bhatnagar Prize for physical ences for the year 1980 has been awarded to of. N. Mukunda, Centre for Theoretical udies, Indian Institute of Science, Bangalore, ntly with Dr N.S. Satya Murthy, Nuclear ysics Division, Bhabha Atomic Research ntre, Bombay.

Prof. Mukunda has made significant contri-tions to the study of symmetry structure in namics, in particular, of singular systems, and the representation theory of the Lorentz and incare groups. His work has clarified the errelationship between classical and quan-m dynamics, and is fundamental to the derstanding of kinematical aspects of ativistic physical systems. [For a detailed count of Prof. Mukunda's prizewinning work, e *CN*, 31(1981), 37.]

Dr N.S. Satya Murthy

e Shanti Swarup Bhatnagar Prize for physical ences for the year 1980 has been awarded to N.S. Satya Murthy, Nuclear Physics Division, abha Atomic Research Centre, Bombay, ntly with Prof. N. Mukunda, Centre for eoretical Studies, Indian Institute of Science, ngalore.

Dr Satya Murthy has done pioneering work ing thermal neutron beams to study magnetic aterials. He has set up neutron spectrometer facilities and used them to study ferromagnetic, antiferromagnetic and ferrimagnetic materials. He elucidated the magnetic structures of a number of alloy systems. Dr Satya Murthy's exhaustive neutron diffraction work on ferrites has led to the discovery of the non-collinear spin structure, also known as Yafet-Kittel type of ferrimagnetism. He has developed the polarized neutron technique for both structure and spin density measurements in magnetite and a number of other compounds and alloys. [For a detailed account of Dr Satya Murthy's prizewinning work, *see CN*, 31(1981), 36.]

Prof. Asis Datta

The Shanti Swarup Bhatnagar Prize for biological sciences for the year 1980 has been awarded to Prof. Asis Datta, School of Life Sciences, Jawaharlal Nehru University, New Delhi, jointly with Dr J.S. Singh, Department of Botany, Kumaun University, Nainital.

Prof. Datta has made significant contributions in the field of molecular biology. His work on gene regulation in yeast using an inducible N-acetylglucosamine catabolic pathway is a very notable contribution and has advanced our knowledge of the mechanism of gene expression in eukaryotes.

Dr J.S. Singh

The Shanti Swarup Bhatnagar Prize for biological sciences for the year 1980 has been awarded to Dr J.S. Singh, Department of Botany, Kumaun University, Nainital, jointly with Prof. Asis Datta, School of Life Sciences, Jawaharlal Nehru University, New Delhi.

Dr Singh has done pioneering work in the field of ecology with reference to grassland ecosystems, enunciating new concepts on trophic biomass relations, ecophysiology, energy flow, diversity and mathematical modelling of tropical grasslands. His contributions have added substantially to our knowledge of the structure and function of grassland ecosystems in general and tropical grasslands in particular, which have important implications in their management. [For a detailed account of Dr Singh's prizewinning work, *see CN*, 31(1981), 35.]

Dr V.S. Arunachalam

The Shanti Swarup Bhatnagar Prize for engineering sciences for the year 1980 has been awarded to Dr V.S. Arunachalam, Director, Defence Metallurgical Research Laboratory, Hyderabad.

Dr Arunachalam has made outstanding contributions to applied and fundamental work in the area of materials technology. His work on ordered alloys, strength of two-phase materials, creep behaviour and mechanism of pore closure is well recognized. Under his leadership, the country has become self-reliant in certain areas of strategic materials. [For a detailed account of Dr Arunachalam's prizewinning work, *see CN*, 31(1981), 21.]

Prof. P.R. Adiga

The Shanti Swarup Bhatnagar Prize for medical sciences for the year 1980 has been awarded to Prof. P.R. Adiga, Indian Institute of Science, Bangalore, jointly with Prof. T. Desiraju, National Institute of Mental Health & Neuro Sciences, Bangalore.

Prof. Adiga has made significant contributions in purification of carrier proteins for the two water-soluble vitamins thiamin and riboflavin. Their induction under hormonal influence has been demonstrated. Evidence has been presented for the role of these proteins in transport of vitamins to the foetus and the possibility of pregnancy termination through antibodies in rodents. [For a detailed account of Prof. Adiga's prizewinning work, *see CN*, 31(1981), 27.]

Prof. T. Desiraju

The Shanti Swarup Bhatnagar Prize for medical sciences for the year 1980 has been awarded to Prof. T. Desiraju, National Institute of Mental Health & Neuro Sciences, Bangalore, jointly with Prof. P.R. Adiga, Indian Institute of Science, Bangalore.

Prof. Desiraju's work on the intricate and complex neurophysiological activities of the cerebral cortex related to the states of sleep and waking has led to further understanding of the principles of organization of the highly evolved areas of the cerebral cortex. The experimental techniques employed by him have led to a better understanding of the mechanisms of transmission of neuronal signals for conscious behaviour. [For a detailed account of Prof. Desiraju's prizewinning work, *see CN*, 31(1981), 60.]

Prof. R. Sridharan

The Shanti Swarup Bhatnagar Prize for mathematical sciences for the year 1980 has been awarded to Prof. R. Sridharan, Tata Institute of Fundamental Research, Bombay.

Prof. Sridharan has made very significant contributions to the study of projective modules over polynomial extensions of division rings, which led to the understanding of problems on quadratic forms. His collaborative work with S. Parimala and M. Ojanguren has led to important developments in the quadratic analogue of Serre's conjecture. Prof. Sridharan's earlier work on Lie algebras and projectivities over rings has attracted wide attention.

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Dr J.G. Negi

The Shanti Swarup Bhatnagar Prize for earth sciences for the year 1980 has been awarded to Dr Janardan G. Negi, Scientist, National Geophysical Research Institute, Hyderabad, jointly with Prof. B.K. Sahu, Indian Institute of Technology, Bombay.

Dr Negi has made significant contributions to theoretical geophysics, particularly in geoelectromagnetics and geomagnetism. His contributions have led to the development of important conceptual frameworks for delineating the earth's internal features from the distribution of its gravity, heat flow and electromagnetic fields at the surface. [For a detailed account of Dr Negi's prizewinning work, *see CN*, 31(1981), 54.]

Prof. B.K. Sahu

The Shanti Swarup Bhatnagar Prize for earth sciences for the year 1980 has been awarded to Prof. B.K. Sahu, Indian Institute of Technology, Bombay, jointly with Dr Janardan G. Negi, National Geophysical Research Institute, Hyderabad.

Prof. Sahu has done pioneering work in the field of mathematical geology in India and his contributions have been very significant, having relevance to both basic and applied aspects. His attempts to introduce mathematical and quantitative approaches in a descriptive science like geology represent useful breakthroughs and are marked by excellence and originality. He has developed statistical and mathematical models in geology (sediments and ore deposits) and devised computer-aided techniques for their geological interpretations using multivariate and time series procedures. [For a detailed account of Prof. Sahu's prizewinning work, *see CN*, 31(1981), 22.]

Dr A.R. Verma, Director, National Physical Laboratory, proposed a vote of thanks. □

Dr G.S. Sidhu

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Dr Sidhu took over from Prof. M.G.K. Menon on 5 May 1981.

Well known for his contributions in the field of industrial organic chemicals, drugs and pharmaceuticals, pesticides, and wood chemistry, Dr Sidhu was Director of the Regional Research Laboratory, Hyderabad, from where he retired on 31 January 1981.

[For a more detailed account of Dr Sidhu's scientific attainments, *see CN* 31(1981), 31-32.]

Throughout his distinguished career as a scientist, Dr Sidhu has maintained close relations with industry on the one hand and universities on the other. He firmly believes that the CSIR laboratories should have close and strong contacts with the industry on the one hand and with academic institutions on the other. He does not believe in the dichotomy of 'basic' and 'applied' research.

Addressing CSIR scientists, on assuming office, Dr Sidhu said:

"CSIR has been headed by eminent scientists. Therefore, it is with a great deal of diffidence that I have accepted this high appointment. It is not going to be an easy task to measure up to the high standards set up by my predecessors, but with the cooperation and collaboration of my colleagues within the organization and friends in industry, academe and government, I shall try my best to take the organization forward towards its goals.

"It has been a real and special pleasure to have worked as a Director with Prof. Menon. It is rare to meet a person of such scientific brilliance, a very wide spectrum of knowledge and endearingly humane qualities. I am counting on his wise counsel and guidance continuing to be available to us in CSIR.

"I cannot but think back today of Prof. S. Husain Zaheer whom I joined as an undergraduate honours student in 1937. As my research superior, then as Director of RRL, Hyderabad, and later as Director General, CSIR, he greatly influenced my thinking. I regard my elevation to this high office as a fitting tribute to his memory.

"It will be my endeavour that research in CSIR should meet the technological needs of our industry. I am confident that industry will take more and more interest in technologies developed within the country. We will always aim to develop modern and efficient technologies and will not be purveyors of obsolescent know-how. We will continue to maintain close relationship with the universities, because it is here that the fu scientists are being shaped. In our laboratories, we will encourage resea in forward areas, as good technolog not possible without good science.

"It will be our special endeavou further strengthen our relationship v the public-sector industry, the techn ministries in the Government of In with the state governments, Plann Commission, the financing institut and the National Resea Development Corporation of Inc With the Department of Science a Technology, we naturally have a spe relationship because there we are a p of an integral whole and I will lo forward to very close involvement w Prof. Menon."

Ocean Features: Worksho

As land-based resources are dwindli fast, man is increasingly turning attention to the ocean. Described as 'last frontier', the oceans are the sour of food, energy and minerals, includi oil and gas. It was against t background that the workshop 'Ocean features: The next 25 years', he at the National Institute Oceanography, Goa, from 3 to 5 Mar 1981, discussed in depth a smörgasbo of topics bearing on the ocean a identified for futuristic study fo priority areas: (i) living resources (fo and biomedicals), (ii) non-living r sources (minerals, oil, and gas), (iii) ne resources of energy (thermal, tide, wav and marine biomass), and (iv) pollutio control.

In a 12-point recommendation t workshop called for the extension of t limits of territorial waters in view of t living and non-living resources of t continental shelf. The workshop r cognized that proper protection territorial waters and the economic zo was necessary. Through one of i principal recommendations it urge that effective technologies should b developed for: (i) desalination of s water, (ii) utilization of thermal, wav and tidal energy and energy fro marine biomass for generating powe

a top-priority basis; (iii) deep-sea ing of polymetallic nodules, (iv) casting of the natural marine nomena for fishing and for pro- ion of shoreline from erosion; and (v) ting and combating marine pol- on. It called for stepping up R&D rts in ocean sciences which would to: discovery of new fishing unds, tapping energy, meeting ence needs, augmenting living and -living resources, including oil and ; and protection of coastal zone from sion, tides, waves, and storms.

n view of the impending danger from pollution in future, the workshop ommended that urgent measures, luding legislation to check oil llution in our seas, should be taken, d India should strive for the ification of IMCO 1974 convention fight against pollution hazards.

The workshop also recommended (i) ilding up of essential tools for ocean earch; (ii) development of instru- nts for oil exploration, deep-sea ning, fishing, etc.; (iii) building up of ined manpower for oceanographic earch and industry, especially be- use of lacuna in this area, (iv) engthening of NIO's existing data ntre; (v) formation of a Central aching Institute in oceanography and ean technology; (vi) development of a ll-coordinated system for technology nsfer from laboratories to the users; d (vii) formulation of a marine policy the use of sea-bed, and of coastal aters by mechanized and non- echanized fishing boats, and on llution control.

Attended by 40 invited speakers and rticipants, the workshop was in- gurated by Dr Raja Ramanna, irector, Bhabha Atomic Research entre, and Secretary, Department of tomic Energy, and presided over by rof. Maheswar Dayal, Adviser, epartment of Science and Technology. hile Dr Ramanna emphasized the eed for proper management and ilization of manpower to explore the ceans, Prof. Dayal underscored the eed for protecting environment from pollution and for monitoring effectively the progress of R&D work in marine science. □

Training Programme on Financial Management in Leather Industry

In association with the Institute for Financial Management and Research (IFMR), Madras, the Central Leather Research Institute (CLRI), Madras, organized a training programme on Financial Management in Leather Industry from 23 to 27 February 1981. Participants included tanners, technologists, traders, and policy-makers.

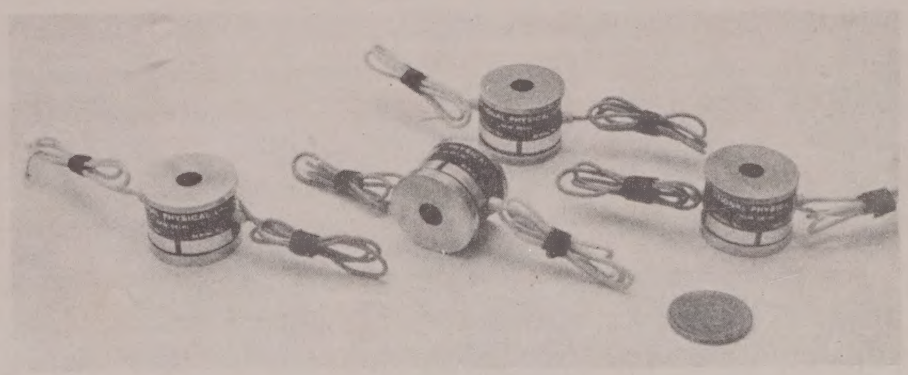
The course content included financial functions in industry, financial planning, working capital management, management of debtors, bank finance for leather units, cost-volume profit relationship, costing in leather units, technical aspects of leather units, economics of leather units, rehabilitation of sick units, and financing of leather exports. A panel discussion on subjects dealt with during the course as also related topics was held on the concluding day.

The faculty was drawn from IFMR and CLRI. Guest lectures were given by experts from the industry and financial and audit institutions. □

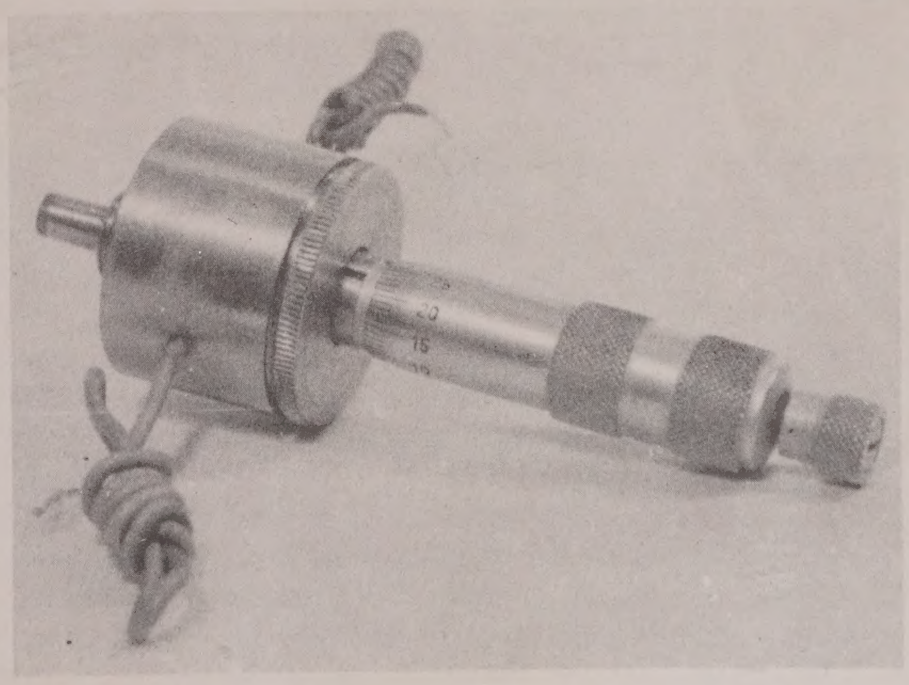
Piezoelectric Linear Drive Transducer and Piezoelectric Micrometer

NRDC AWARDWINNING INVENTION

Dr V.N. Bindal and Shri Mukesh Chandra of the National Physical Laboratory (NPL), New Delhi, have been jointly awarded the National Research Development Corporation of India's Republic Day (1981) award, comprising a cash prize of Rs 3000, for developing piezoelectric linear drive transducer and piezoelectric micrometer.



Piezoelectric linear drive transducers



Piezoelectric micrometer

In a number of applications such as laser interferometry, Fabry-Perot spectrum analyzer and holography, very stringent and critical optical alignment is required. Devices for giving such small displacements by mechanical means require expensive high-precision gears and do not serve the purpose if displacements of the order of wavelengths of light are involved. The piezoelectric linear drive transducer and piezoelectric micrometer developed by Dr Bindal and Shri Mukesh Chandra are aids for fine movement control. These piezoelectric devices are rugged, compact, economical and remote-controlled and can be used in a wide variety of optical, mechanical and electro-optical systems. The devices have been successfully used by a number of scientific organizations and universities.

The piezoelectric linear drive transducer, consisting of NPL-made lead zirconate titanate ceramic discs or rings, can provide movements from 0.025 μm per 10 V dc to 25 μm for 3 kV dc. Its performance is not affected even under a load of 15 kg. In the piezoelectric micrometer, a tubular ceramic stack is coupled with a micrometer screw gauge in such a way that the device can provide a movement from 0.025 to 15 μm, which can be added to any setting of the micrometer.

Two patents on these devices have been taken. The technical know-how for the manufacture of these devices can be obtained through NRDC. The devices are also available from NPL on payment. □

RRL-Bhubaneswar Introduces Cinnamon in Orissa

Cinnamon has been successfully introduced, for the first time, in the Orissa region by the Regional Research Laboratory (RRL), Bhubaneswar. The bark and leaf oil have been found to be of standard quality. In view of the interest created among the people in its cultivation, seedlings raised by the laboratory are being supplied to parties for starting cinnamon plantation. In collaboration with the horticulture and soil conservation departments of Orissa, this regional laboratory has started a multilocational trial to find suitable areas for cinnamon cultivation.

An illustrated technical note on the cultivation of cinnamon, containing information on the method of cultivation, coppicing, harvesting, quill preparation, extraction of leaf oil, and trade, has also been brought out. The publication can be had from the Director, RRL, Bhubaneswar 751013. □

CMERI Observes Open Day

The Central Mechanical Engineering Research Institute (CMERI), Durgapur, observed 16 February 1981 as 'open day', when over 3500 people visited the laboratory and witnessed live demonstration of prototypes and models. A feature of the open day was the holding of discussions with the represnentatives of industries with a view to identifying areas of immediate interest to the regional industries. □

Krishnan Memorial Lectures

The National Physical Laboratory (NPL), New Delhi, has brought out a compilation of thirteen Krishnan Memorial Lectures that have been delivered so far. The publication can be had from: The Director, NPL, New Delhi 110012. □

CMRS Silver Jubilee Souvenir

On the occasion of its silver jubilee celebrations, the Central Mining Research Station (CMRS), Dhanbad, brought out a souvenir which highlights the aims and objectives and achievements of the laboratory. The souvenir can be had from: The Director, CMRS, Dhanbad 826001. □

PATENTS FILED

816/Del/80: An improved process for the sealing of anodized aluminium and its alloys, B.A. Shenoi, S. John, N.V. Shanmugham, K.N. Srinivasan & Selvam—CECRI, Karaikudi.

817/Del/80: Improvements in relating to chemical oxidation aluminium and its alloys for decora application, B.A. Shenoi, S. John, Shanmugham, K.N. Srinivasan & Selvam—CECRI, Karaikudi.

PERSONNEL NEWS

Appointments/Promotions

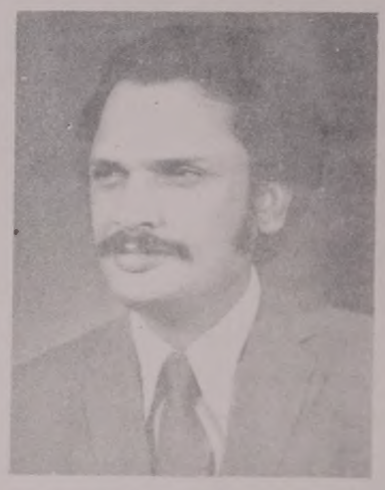
Shri S.S. Viswanathan

Shri S.S. Viswanathan, ICAS, has b appointed Chief (Finance), Council Scientific & Industrial Research, N Delhi (18 April 1981).

Prof. K.S. Rao CSMCRI's Acting Director

Prof. K.S. Rao has been appoin Acting Director of the Central Salt Marine Chemicals Research Instit (CSMCRI), Bhavnagar, with eff from 1 January 1981.

Prof. Rao (born 15 Oct. 19 received his education at the Andh



University: B.Sc. (Hons) (1956), M.S (Chem. Tech.) (1957), and D.Sc. (go medal) (1963). Prof. Rao has worked, faculty member, at the Andh University, Regional Engineeri College, Warangal, and Birla Institu of Technology and Science (BITS Pilani. At BITS he was the head of Chemical Engineering Department f about eight years. He was Visiti Professor at MIT, Cambridge, US during 1968-69.

Prof. Rao's research interests encor pass mass transfer, marine chemica

energy utilization, and computer-
design. As project leader of the
emperature solar thermal pro-
s group at BITS, he developed
al types of solar water pumps. He
also principal investigator and
dinator for the inter-disciplinary
gical studies in and around Khetri
d at investigating the effect of
lishing a large copper and fertilizer
strial complex.

rof. Rao has carried out modelling
simulation studies on the role of
ign assistance in a developing
nomy and on the effects of
rnational short-term capital move-
ts on national economies. On
tation he presented papers at the
d World Econometrics Congress at
ario, Hamilton, Canada, in 1975
the NBER Conference on
hastic Control at the University of
nford at Palo Alto, USA, in 1976.

t CSMCRI he is the discipline
rdinator for Solar Energy and
mical Engineering divisions. He
ed USA under a Ford Foundation
nt and worked as consultant to UN
versity. Prof. Rao is the chairman of
Indian Standards Institution
mmittee and member of the govern-
body of Gujarat Energy
velopment Agency. He is associated
a number of universities in
erent capacities. □

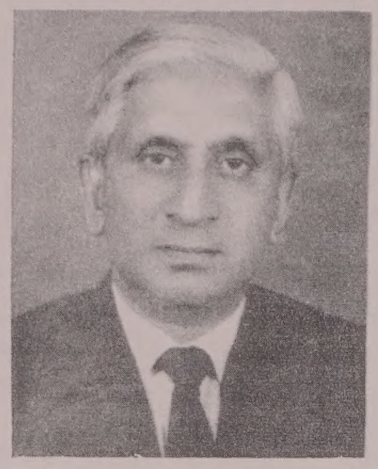
Dr Vaidyeswaran
pointed in Director's Grade

R. Vaidyeswaran of the Regional
search Laboratory (RRL), Hyde-
ad, has been appointed Scientist in
rector's grade (31 March 1981).

After obtaining his B.Sc. and B.Sc.
chnology) in chemical engineering
m the Madras University, Dr
idyeswaran has been with RRL,
derabad, since 1949. Deputed to
st Germany in 1957 for advanced
ining in fuel technology, he earned
Dr. Ingenieur degree from the
chnical University, Karlsruhe, in
59 for his work on hydrogenation of
w-temperature tar.

Dr Vaidyeswaran has extensive R&D expertise in the rational utilization of low-grade coal, and has investigated such major projects as low-temperature carbonization (LTC) of coal for producing domestic fuel as also a reductant for electrometallurgy; utilization of byproducts of LTC; hydrogenation of LT tar fractions; and complete gasification of coal.

Dr Vaidyeswaran has been associated with the 900 tonnes/day LTC plant set



up by the Singareni Collieries Co. Ltd in Andhra Pradesh for which the laboratory provided know-how and basic engineering. Currently, he is the national project director for the UNDP-funded pilot plant project on pressure gasification of coal (1 tonne/hr coal). Other projects with which he has been associated are: carbonization of wood and saw dust; production of active carbons from coconut shell char, wood charcoal and similar materials; hydrogenation of benzene to cyclohexane; alkylation of phenol with methanol; chlorination of phenol, tar acids and nitrobenzene; and production of diphenylamine from aniline. He has prepared several feasibility and project reports on LTC and complete gasification of coal to industrial fuel gas and town gas.

Dr Vaidyeswaran was convener of the expert panel on 'Coal Utilization for Import Substitution', set up by the National Committee on Science and Technology (1972-74), and member of the expert group on 'Coal to Oil', which submitted its report in 1979. He is a member of the Department of Science and Technology's committee on 'Fuels from Biomass', and CSIR representative on the Indian national committee for World Energy Conference. He is a fellow of the Oil Technologists' Association of India.

He has visited West Germany (1972), USA (1973, 1980), USSR (1973) and GDR (1972) on a study tour or as member of delegation. He has to his credit more than 50 publications and a number of patents. □

Honours & Awards

Prof. C.G. Swaminathan

Prof. C.G. Swaminathan, Director, Central Road Research Institute, New Delhi, has been elected President of the Indian Roads Congress for 1981.

IRC Awards to CRRI Scientists

Three papers published by the scientists of the Central Road Research Institute, New Delhi, in *Journal of Indian Roads Congress* have won the Indian Roads Congress (IRC) awards. These are: (1) Appropriate technologies for rural road development, C.G. Swaminathan and N.B. Lal [40 (1979), 297]; (2) Design and construction of roads on refuse dumps by preloading techniques (Chembur Mankurd Link Road, Bombay), T.K. Natarajan [40 (1979), 539]; and (3) Practical lessons on road construction in black cotton soil areas, T.K. Natarajan and E. Shanmukha Rao [40 (1979), 153]. The authors of the first two papers have won IRC medals and the authors of the third paper, a commendation certificate. □

Obituary

Shri A. Ganesan

Shri A. Ganesan of the Central Leather Research Institute (CLRI), Madras, passed away on 31 March 1981.

A specialist in tanning and finishing of sophisticated finished leathers, Shri Ganesan (born 15 Feb. 1926) was with CLRI since 1952, after obtaining his B.Sc. (Tech.) in leather technology. Architect of CLRI's extension services, he was responsible for establishing all its five regional extension services. Besides rendering technical consultancy services to tanners, he was instrumental in the

preparation of many project reports and turn-key projects. In 1973 he led CLRI's team to Tehran for establishing a leather institute there under FAO's auspices.

Shri Ganesan will be remembered for his dedicated services to the leather industry as also for making known CLRI's technological expertise among the tanning centres spread all over the country. □

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

Advertisement No. 7/81

It is proposed to appoint a Chief Technical Officer F at the International School of Milling Technology (ISMT), Central Food Technological Research Institute (CFTRI), Mysore.

Job requirements: This is a senior management position. The incumbent will be responsible for planning and coordinating the training and development programme and providing high-level leadership in the area of flour milling. He should be able to command the confidence of the industry in the field and would be expected to provide assistance to the Director (CFTRI) in the management of ISMT and also interact with organizations and public bodies.

Qualifications: High academic qualifications in cereal chemistry with a good academic record. Outstanding record of industrial experience in the field of flour milling and familiarity with modern methods of processing in wheat and other cereal grains. At least 10 years' experience in a responsible position in a reputed organization or an industry with proven ability to teach and manage ISMT.

Salary/conditions of service: Scale: Rs 2000-125/2-2500. Initial pay will be fixed according to merit. The person selected will be appointed on contract for a period of six years, which would be confirmed after an initial period of two years of satisfactory service. Other conditions of contract will be supplied or request. Qualifications and experience are relaxable in the case of candidates otherwise found suitable for the post.

Advertisement No. 8/81

It is proposed to appoint a Director to head the Regional Research Laboratory (RRL), Jorhat.

Job requirements: It is a top research management post for one of the national laboratories of the CSIR. RRL, Jorhat, is a multidisciplinary, chemical industry oriented research laboratory engaged in the generation, assessment and transfer of technology based on raw materials, agricultural and mineral resources of Assam and other north-eastern states and union territories, namely Meghalaya, Nagaland, Manipur, Tripura, Arunachal Pradesh, and Mizoram. Major physical facilities available in the laboratory include UV, IR, T-60 NMR and MS-30 mass spectrometers and DTA, and a wide range of pilot plants for unit operations. The laboratory employs about 200 professionals and 300 supporting staff. The science and technology plans of the laboratory are expected to promote the economic, industrial and social growth plans of the north-eastern region. In addition, the laboratory is expected to handle projects of national concern as well in its area of expertise. It has projects in the field of cellulose and speciality papers, coal and petroleum, medicinal and aromatic plants, pesticides, drugs, organic and inorganic chemicals, chemical engineering, applied civil engineering, etc. Basic research in these disciplines is also encouraged.

Qualifications and experience: Candidates must possess high academic qualifications and an established reputation in any of the fields of chemical sciences/chemical engineering and possess leadership qualities and flair for planning and management of research and development involving inter-disciplinary work and organizing branches/extension activities.

Salary/conditions of service: Scale: Rs 2500-125/2-3000. Initial pay will be fixed on merits. Appointment will be on contract for a period of six years, which would be confirmed after two years of satisfactory service. Unfurnished residential accommodation is available in the campus on payment of standard rent.

Advertisement No. 9/81

It is proposed to appoint one Scientist F (Deputy Director) at the Central Mechanical Engineering Research Institute, Durgapur.

Job requirements: This is a senior research management post in the field of mechanical engineering. The selected candidate will be expected to provide high-level leadership to initiate, plan, guide and coordinate R&D activities in the field of production engineering. The candidate should have wide interest and knowledge in the areas such as design of special-purpose machine tools, metal forming, materials, tribology and metrology. Experience in consultancy work in the field of mechanical engineering and production technology is desired. The selected scientist would be associated with the Director in his administrative and managerial responsibilities.

Qualifications and experience: (i) High academic qualifications at postgraduate level in mechanical engineering with specializat production engineering/technology. (ii) A years' experience in R&D and/or in indust high level.

Salary/conditions of service: Scale: Rs 125/2-2500. Initial pay will be fixed accord merit. Person selected will be appoint contract for a period of six years, which wo confirmed after an initial period of two ye satisfactory service. Qualifications and expe are relaxable in the case of candidates oth found suitable for the post. Other conditi contract will be supplied on request.

Advertisement No. 10/81

It is proposed to fill one post of Scientist F (D Director) at the National Chemical Labor (NCL), Pune.

Job requirements: This is a senior res management position. The incumbent is exp to head NCL's Process Development Divisio will be responsible for planning, conducting coordinating process development progra and providing high-level leadership to a m disciplinary team of scientists in the divi Within NCL, he will be expected to coordinat activities of the process development division various chemical science divisions and chemical engineering division. He will coordinate activities of project engineering f and various collaborating organizations. He be expected to play a leading role in succes implementation of NCL technologies.

Qualifications: The candidate should be a P in chemistry, chemical engineering or chem technology. He should have 10-15 ye experience in the development of processes research laboratory in diverse areas such petrochemicals, pesticides, drugs and inorg chemicals, or equivalent industrial experience should have a proven record of having led pro teams which have been successfully involved in transfer of laboratory know-how through p plant/semi-commercial plant stages to a c mercial plant stage.

Salary/conditions of service: Scale: Rs 20 125/2-2500. Initial pay will be fixed accordin merit. The person selected will be appointed contract for a period of six years, which would confirmed after an initial period of two years satisfactory service. Qualifications and experie are relaxable in the case of candidates otherw found suitable for the post. Other conditions contract will be supplied on request.

Age limit (for the posts covered by Advertisem Nos 7/81-10/81):

Below 50 years, relaxable in special cases. T copies of the standard pro forma for sending *curriculum vitae* may be obtained from the Ch (Administration), Rafi Marg, New Delhi 1100 Complete *curriculum vitae* pro forma must received on or before 15 June 1981 in the case post against advertisement No. 7/81 and 18 Ju 1981 in the case of the other three posts.

Printed & Published by Y.R. Chadha, Chief Editor, Publications & Information Directorate (PID)
Hillside Road, New Delhi 110012, at PID Photocomposition-cum-Printing Unit
Editor: P.S. Shankar Assistant Editor: Dr B.C. Kashyap

RN 4212